

REMARKS

Claims 1, 12, 13 and 24-34 have been amended. No claims have been added or cancelled. Therefore, claims 1-34 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Drawings:

The Examiner contends, "the drawings submitted on September 17, 2003 are acceptable for examination proceedings only" and that they "are difficult to read." Firstly, Applicants assume the Examiner intended to refer to the drawings submitted on September 30, 2003, as no drawings were submitted on September 17, 2003. Secondly, the drawings available via the PTO's Public PAIR system seem perfectly legible. Applicants respectfully request clarification from the Examiner regarding why the drawings are difficult to read.

Section 101 Rejection:

The Examiner rejected claims 1-34 under 35 U.S.C. § 101 as being directed to a non-statutory subject matter. The Examiner asserts that claims 1-34 "are directed to non-statutory subject matter, specifically the claims are not directed towards the final result that is 'useful, tangible and concrete'". Applicants traverse this rejection. However, in order to expedite prosecution, independent claims 1, 12, 13 and 24 have been amended. Withdrawal of the rejection is respectfully requested.

The Examiner also the claims "because the claims are directed to a non-statutory subject matter, specifically, directed towards 'computer accessible medium'". However, claim 1-11 and 12 are directed towards systems and claims 13-23 are directed towards a computer-implemented method. As such, claims 1-23 are not directed to computer accessible media, as the Examiner incorrectly contends. Thus, the rejection of claims 1 –

23 as being directed toward “computer accessible medium” is clearly incorrect. Claims 24-34 have been amended to recite a computer readable storage medium.

For at least the reasons above, Applicants respectfully request removal of the 35 U.S.C. § 101 rejection of claim 1-34.

Section 102(e) Rejection:

The Examiner rejected claims 1-34 under 35 U.S.C. § 102(e) as being anticipated by Rodriguez et al. (U.S. Patent 6,823,428) (hereinafter “Rodriguez”). Applicants respectfully traverse this rejection for at least the reasons below.

Regarding claim 1, Rodriguez fails to disclose an I/O request that specifies one or more timestamps for temporal data on the temporal volume. Rodriguez teaches a caching method that avoids cache flooding when handling sequential I/O request streams in storage subsystem caches. However, Rodriguez’ system does not include receiving an I/O request that specifies timestamps for temporal data on a temporal volume. Rodriguez teaches a caching mechanism that detects sequential streams interleaved within the I/O request stream. Rodriguez’ also includes a secondary or tracer cache directory for maintaining directory information associated with referenced blocks in order to keep track of additional references to the sequential stream. (Rodriguez, col. 3, lines 29-53; col. 5, lines 3-30; and column 5, line 63 – col. 6, line 31).

Contrary to the Examiner’s assertion, Rodriguez does not disclose a temporal volume manager configured to receive an I/O request from an application, where the I/O request specifies one or more timestamps for temporal data on the temporal volume. The Examiner cites col. 5, line 53 – col. 6, line 12 and col. 6, lines 50 – 61, where Rodriguez describes the operation of his caching mechanism. However, Rodriguez caching mechanism does not involve I/O requests that specify one or more timestamps for temporal data on the temporal volume. At one of the Examiner’s cited passages (col. 6, lines 50 – 61), Rodriguez teaches that for cache replacement algorithms (i.e. algorithms

to determine which entries of a full cache to evict when caching new data) a frequency count and a timestamp may be kept in the cache directory for each entry as required by the least recently used and least frequently used cache replacement techniques. However, maintaining a timestamp for each entry of cache for use during cache replacement techniques does not disclose, nor have any relevance to, receiving an I/O request that specifies one or more timestamps for temporal data on a temporal volume. Timestamp information kept in a cache directory regarding each cache entry cannot be considered an I/O request that specifies timestamps for temporal data on a temporal volume. The Examiner's interpretation of Rodriguez is incorrect.

Applicants respectfully remind the Examiner that anticipation requires the presence in a single prior art reference disclosure of each and every limitation of the claimed invention, arranged as in the claim. M.P.E.P 2131; *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). As discussed above, Rodriguez fails to disclose an I/O request that specifies one or more timestamps for temporal data on the temporal volume. Therefore, Rodriguez cannot be said to anticipate claim 1.

For at least the reasons above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks also apply to claims 12, 13, and 24.

Regarding claim 2, contrary to the Examiner's contention, Rodriguez fails to disclose where the I/O request is a write request, and where in the temporal operation, the temporal volume manager is configured to write temporal data specified by the I/O request to the temporal volume. The Examiner fails to cite any portion of Rodriguez regarding the rejection of claim 2. Instead, the Examiner merely states that claim 2 is "similar in scope to the rejected claims above [claims 1, 12, 13, and 24] and [is] therefore rejected as set forth above." However, Rodriguez caching mechanism is not concerned

with writing temporal data specified in an I/O request to a temporal volume. In fact, Rodriguez fails to mention writing data to any data volume, much less writing temporal data to a temporal volume. Thus, the rejection of claim 2 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks also apply to claims 14 and 25.

Regarding claim 3, contrary to the Examiner's assertion, Rodriguez fails to disclose a temporal volume manager configured to generate a checkpoint of the temporal data on the temporal volume corresponding to a timestamp specified by the I/O request. The Examiner has not cited any portion, nor provided any interpretation, of Rodriguez that discloses generating a checkpoint of temporal data on a temporal volume corresponding to a timestamp specified by an I/O request. The Examiner has merely rejected claim 3 using the rejection of claim 1. However, claim 1 does not recite anything regarding a temporal volume configured to generate a checkpoint of a temporal data on a temporal volume corresponding to a timestamp specified by an I/O request. The Examiner is improperly ignoring differences between the various claims. Thus, the Examiner has failed to provide a *prima facie* rejection of claim 3.

Moreover, as noted above, Rodriguez clearly fails to mention or describe anything regarding generating a checkpoint of temporal data. Therefore, Rodriguez clearly fails to anticipate claim 3. Thus, the rejection of claim 3 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks also apply to claims 15 and 26.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

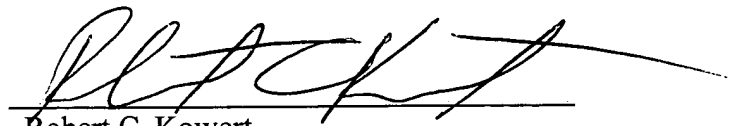
Applicants submit the application is in condition for allowance, and prompt notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicants hereby petition for such an extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5760-13200/RCK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Other:

Respectfully submitted,


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Date: June 16, 2006